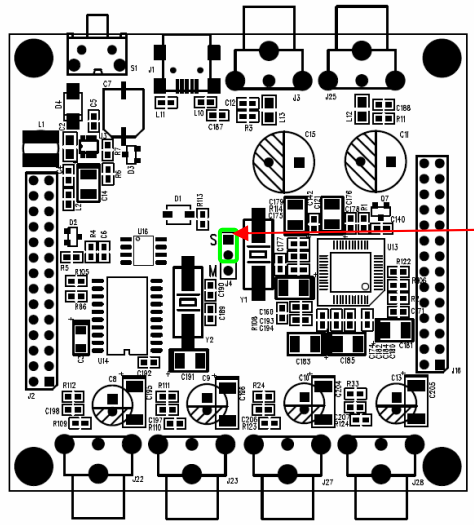
Application Note
Configuration of 1 x miniDSP + 2 x miniDIGI

Disclaimer: Please make sure to read the miniDIGI and miniDSP user manual. This application is not intended as a one for all application note since each board is highly configurable. Note that in this configuration, only ONE miniDIGI can be used as a source for the digital section. This configuration has the following clocking configuration:
1 x miniDIGI as I2S master
1 x miniDIGI as I2S slave
1 x miniDSP as I2S slave

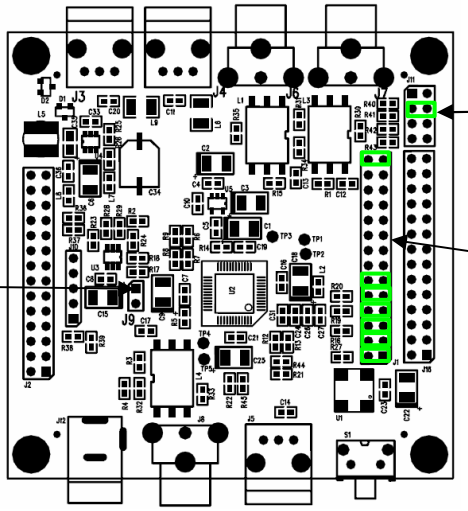
Hardware configuration

1) miniDSP board – Configured to receive Master clock from miniDIGI (S position)
Configured as I2S slave device. See last steps.



Jumper location depends on selected source. See miniDIGI manual for more info.

2) miniDIGI board#1 – Used as an input source and for output.

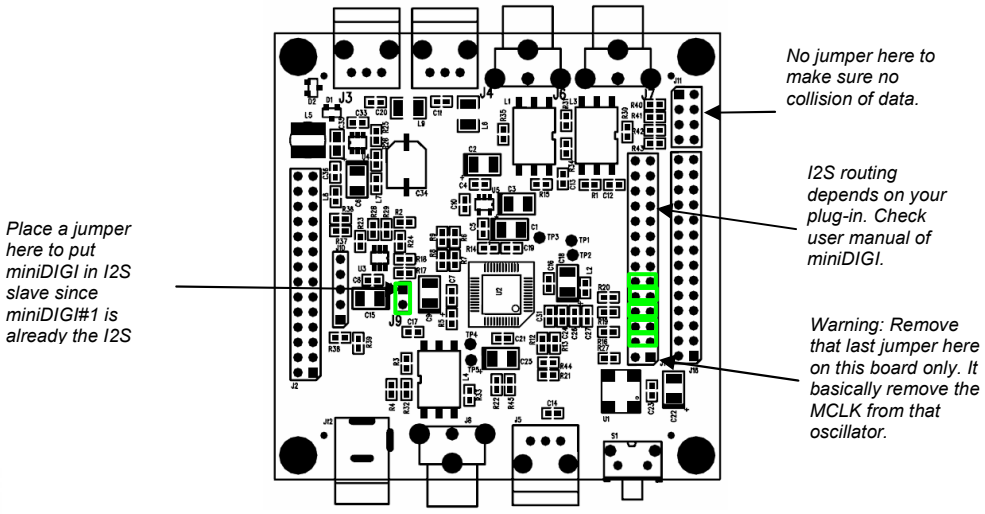


Make sure to place miniDIGI in Master by removing jumper typically located here

Jumper location depends on selected source. See miniDIGI manual for more info.

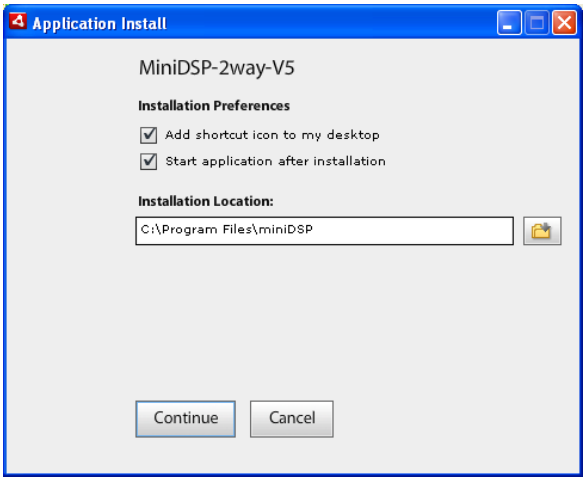
I2S routing depends on your plug-in. Check user manual of miniDIGI.

3) miniDIGI board#2 – Used as an output device only and operating as I2S slave.

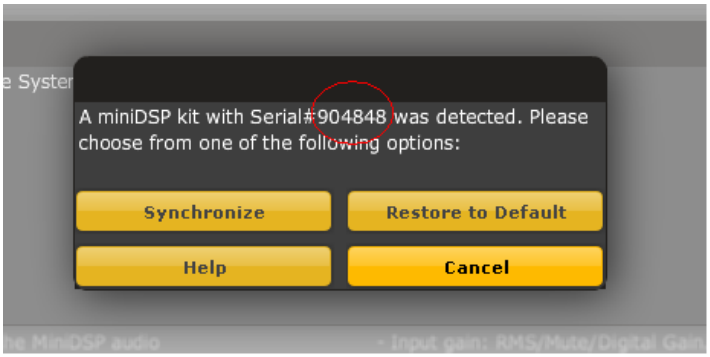

No jumper here to make sure no collision of data.
I2S routing depends on your plug-in. Check user manual of miniDIGI.
Warning: Remove that last jumper here on this board only. It basically remove the MCLK from that oscillator.
Place a jumper here to put miniDIGI in I2S slave since miniDIGI#1 is already the I2S

Software configuration
The miniDSP must first be configured as an I2S slave. See below instructions on how to.

1. Install the plug-in software on your computer. The Default installation path will be "C:\Program Files\miniDSP". If a previous version was installed, make sure to un-install first.

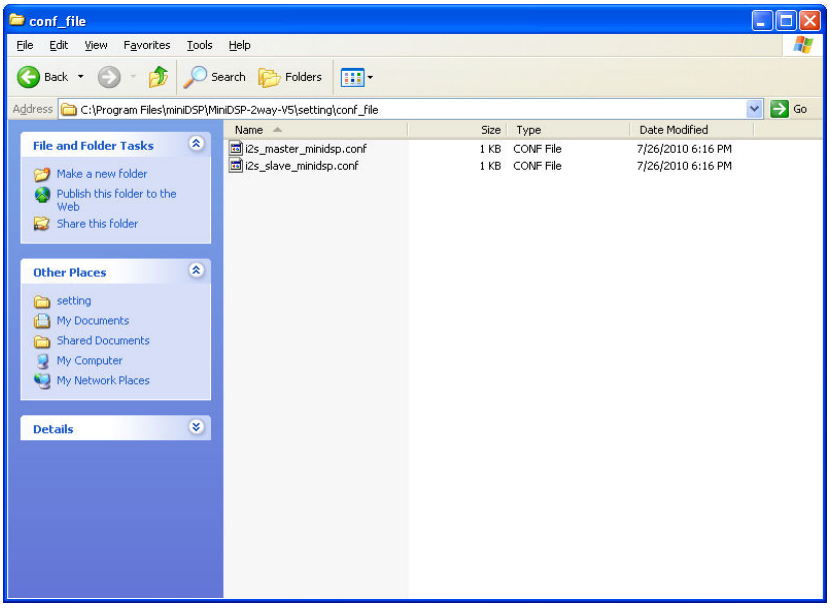


2. Once installation completed, we need to create a unique folder called "90 + your board id" to ensure that only this board will be configured as I2S slave in future synchronization your_installation_path/your_plug-in_name/setting/".. You can find your board id from the sychronization pop up window as follow.

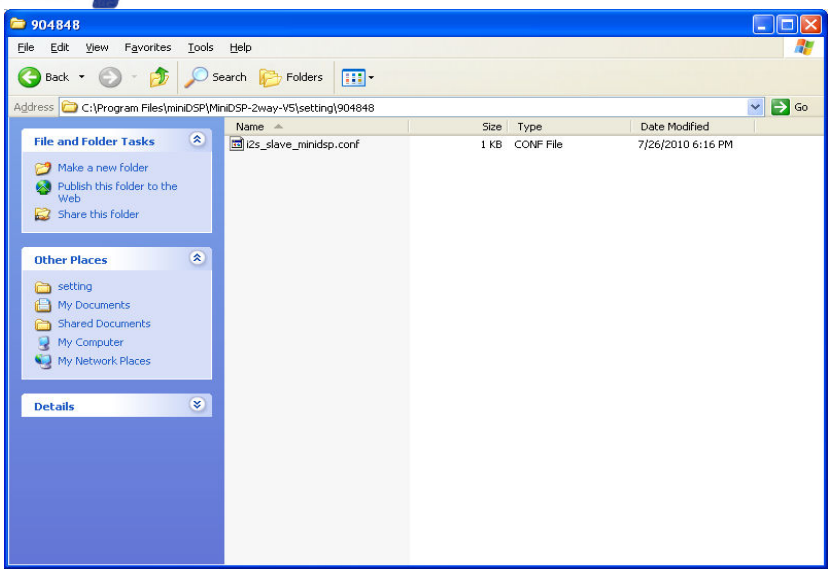


For example, if my plug-in name is 2way-V5, and my board ID is 4848 Create a folder called "904848" in the above "setting" folder. C:\Program Files\miniDSP\MiniDSP-2way-V5\setting\904848

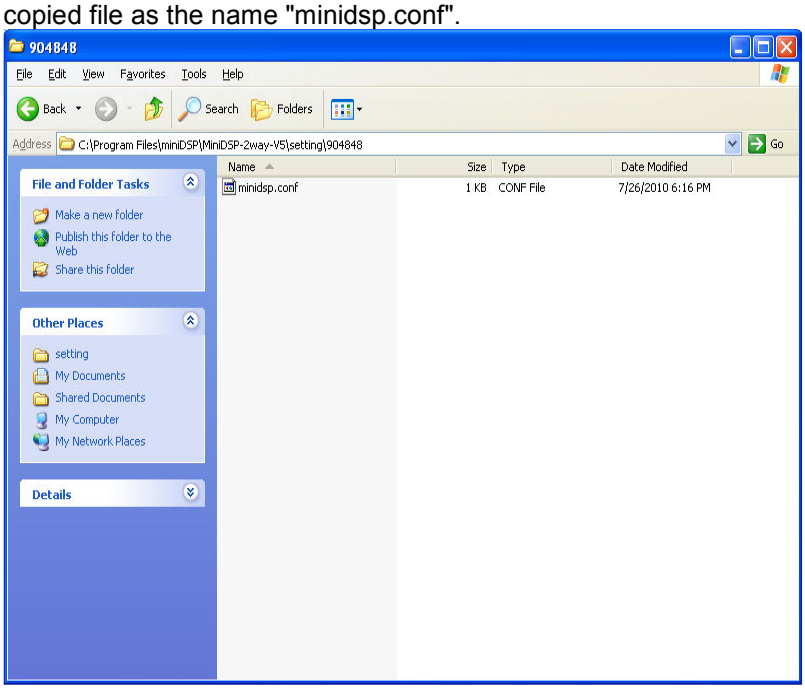
3. Next step, go to the "conf_file" folder in the same directory and copy the "i2s_slave minidsp.conf" file into the newly created "904848" folder



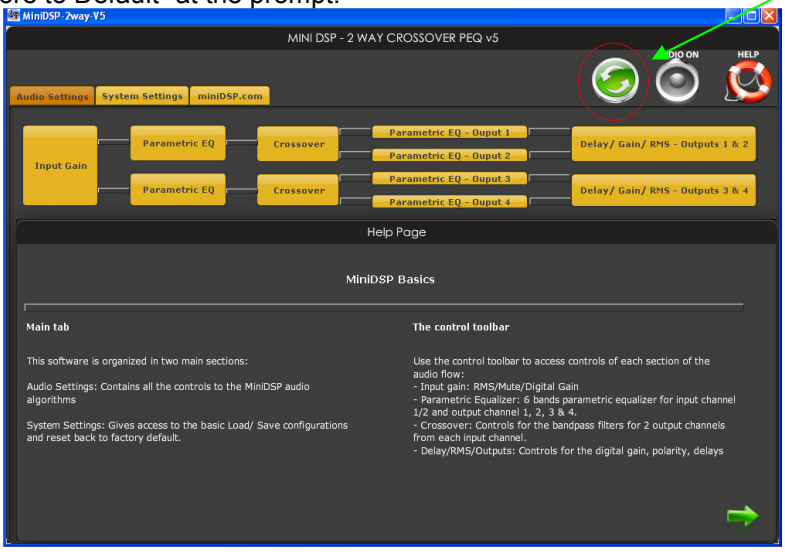
"i2s_master_minidsp.conf" is the default settings configuration file
"i2s_slave_minidsp.conf" is used for 2 minidsp + 1 minidigi.

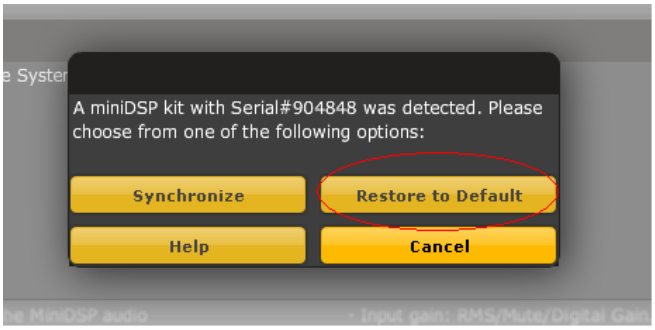


4. Rename the copied file as the name "minidsp.conf".

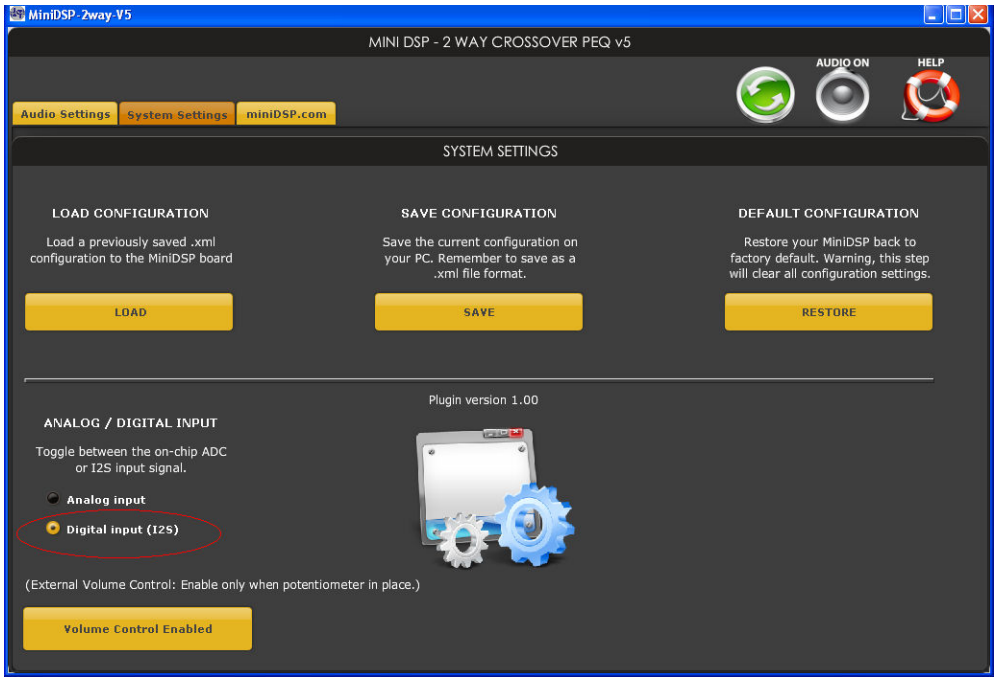


5. 5, Plug in the usb cable to one minidsp. Open the plug-in software and click on the Connect button Click the "Restore to Default" at the prompt.


MiniDSP-2way V5
MINI DSP - 2 WAY CROSSOVER PEQ v5
DIO ON
HELP
Audio Settings
System Settings
miniDSP.com
Input Gain
Parametric EQ
Crossover
Parametric EQ - Ouput 1
Parametric EQ - Ouput 2
Delay/ Gain/ RMS - Outputs 1 & 2
Parametric EQ
Crossover
Parametric EQ - Ouput 3
Parametric EQ - Ouput 4
Delay/ Gain/ RMS - Outputs 3 & 4
Help Page
MiniDSP Basics
Main tab
This software is organized in two main sections:
Audio Settings: Contains all the controls to the MiniDSP audio algorithms
System Settings: Gives access to the basic Load/ Save configurations and reset back to factory default.
The control toolbar
Use the control toolbar to access controls of each section of the audio flow:
- Input gain: RMS/Mute/Digital Gain
- Parametric Equalizer: 6 bands parametric equalizer for input channel 1/2 and output channel 1, 2, 3 & 4.
- Crossover: Controls for the bandpass filters for 2 output channels from each input channel.
- Delay/RMS/Outputs: Controls for the digital gain, polarity, delays


A miniDSP kit with Serial#904848 was detected. Please choose from one of the following options:
Synchronize
Restore to Default
Help
Cancel

6. Once the restore to default complete, go to system settings tab to select the "Digital input(I2S)" Adjust values in the crossover, PEQ or delay as required. Unplug the usb to disconnect the sychronization after setting.


MiniDSP-2way-V5
MINI DSP - 2 WAY CROSSOVER PEQ v5
AUDIO ON
HELP
Audio Settings
System Settings
miniDSP.com
SYSTEM SETTINGS
LOAD CONFIGURATION
Load a previously saved .xml configuration to the MiniDSP board
LOAD
SAVE CONFIGURATION
Save the current configuration on your PC. Remember to save as a .xml file format.
SAVE
DEFAULT CONFIGURATION
Restore your MiniDSP back to factory default. Warning, this step will clear all configuration settings.
RESTORE
Plugin version 1.00
ANALOG / DIGITAL INPUT
Toggle between the on-chip ADC or I2S input signal.
Analog input
Digital input (I2S)
(External Volume Control: Enable only when potentiometer in place.)
Volume Control Enabled

Software and hardware configuration is finished. Simply stack up all three boards together, fire up the system and you should be good to go!